

# 8861

Diag. Cht. No. 8201-3

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## DESCRIPTIVE REPORT (HYDROGRAPHIC)

Type of Survey ..... HYDROGRAPHIC  
Field No. .... PA-10-1-65  
Office No. .... H-8861

### LOCALITY

State ..... SOUTHEAST ALASKA  
General Locality ..... KEKU STRAIT  
Locality ..... SUMNER ISLAND TO POINT BARRIE

1965

CHIEF OF PARTY  
J. K. RICHARDS

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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

**HYDROGRAPHIC TITLE SHEET**

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-8861

Field No. PA-10-1-65

State Southeast Alaska

General locality Keku Strait

Locality Sumner Island to Point Barrie

Scale 1:10,000 Date of survey July-Sept. 1965

Instructions dated 9 December 1964

Vessel USCGC PATTON Launch CS-1181, 2 1/2 knots

Chief of party LCDR James K. Richards

Surveyed by D.A. MOORE, N.A. HORST

Soundings taken by ~~fathometer~~ graphic recorder, hand lead, ~~xxx~~

Fathograms scaled by J. J. Saladin

Fathograms checked by Ship's Officers

Protracted by J. O. Rolland

Soundings penciled by J. O. Rolland

Soundings in fathoms ~~feet~~ at ~~MLLW~~ MLLW

REMARKS:

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SURVEY H-8861 (PA-10-1-65)

Scale 1:10,000

USC&GSS PATTON

J. K. RICHARDS, COMDG.

1965

A. PROJECT

This survey is part of project OPR-448, Keku Strait, Southeast Alaska. The project INSTRUCTIONS were dated December 9, 1964. ✓

B. AREA SURVEYED

This survey covers the southern approaches to Keku Strait, Southeast Alaska. It extends from Sumner Island on the west to about two miles east of Pt. Barrie, and from Strait Island on the south to Lat. 56° 27.3' on the north. ✓

Hydrography commenced on July 28, 1965 and was completed on September 8, 1965. ✓

The most comprehensive prior surveys in this area are surveys H-4763, 1:20,000, 1927 and H-4763b, 1:20,000, 1929. Other prior surveys area: H-1749, 1:80,000, 1886 and H-3405, 1:20,000, 1913. ✓

This sheet junctions with surveys H-8149, 1:10,000, 1954 and H-8689, 1:12,500, 1962 on the south. Junction was made with contemporary survey PA-10-3-65 along part of the western limits. (H-9101) ✓

C. SOUNDING VESSEL

Echo sounding was accomplished by Launch No. CS-1191 and by the Ship PATTON. ✓

In general, the launch surveyed the inshore areas where 50 - or 100 - meter line spacing was required. Launch day letters are shown in violet lower case letters on the boat and smooth sheets. ✓

The ship surveyed offshore areas in depths generally exceeding 30 fathoms, where 200- or 400-meter line spacing was specified. Ship day letters are indicated in blue capital letters. ✓

Detached positions on rocks were obtained by two skiff parties. The positions of one skiff party are indicated in green lower case letters, while those of the other skiff are shown in red lower case letters. ✓

#### D. SOUNDING EQUIPMENT

All launch echo soundings were obtained by a Raytheon DE-723B portable depth recorder, serial number 556. ✓

Ship soundings were obtained with a Raytheon DE-723B portable depth recorder, serial number 532. ✓

Echo sounding corrections for the launch hydrography were determined by bar checks to a depth of seven fathoms. Velocity corrections for greater depths were computed from temperature and salinity observations. ✓

All echo-sounding corrections for the ship hydrography were computed from temperature and salinity observations. ✓

Details relating to the determination of echo-sounding corrections are given in the 1965 Fathometer Correction Report. ✓

Both the launch and ship fathometers worked well throughout the duration of the survey, with no problems encountered. The fathometer operator closely monitored the instruments for initial, phase, and stylus arc errors. All echo-soundings were recorded in fathoms. ✓

Critical least depths on shoals and rocks were obtained with a leadline or sounding pole. ✓

#### E. SMOOTH SHEET

The smooth sheet projection was made on 11 March 1964 in the Washington Office. The projection was checked and the control added in December of 1965 in the Seattle office. The shoreline was added using established methods. ✓

#### F. CONTROL

Control of hydrography was obtained solely by visual three-point sextant fixes on shore signals. Most of the shore signals were ✓

built over triangulation stations and photo-hydro points. Two signals on Strait Island (signals SAP and TUB) were intersected from a short base at station AGO, 1954. ✓

Photo-hydro signals on Sumner and Strait Islands were located on 1955 photographs and plotted on manuscripts T-10708 and T-10709 (PH-5702). ✓

Photo-hydro signals on Conclusion and Kupreanof Islands were located on 1961 photographs and plotted on manuscripts T-12223, T-12224, and T-12225 (PH-6206). ✓

#### G. SHORELINE

The shoreline was transferred from the manuscripts listed in section F. ✓

Field inspection of shoreline details was accomplished along the northeast coast of Sumner Island (manuscript T-10708) and along the north shore of Strait Island (manuscript T-10709). Various off-shore features indicated on ozalid "discrepancy prints" of manuscripts T-12224 and T-12225 were also investigated in the field. ✓

In addition to the items on the discrepancy prints, all important offshore rocks were located and their heights determined by the hydrographic party. Discrepancies between the photogrammetric and hydrographic data are noted below: ✓

(1) Positions of rocks within the foul areas extending from Lat.  $56^{\circ} 26.5' N$  to lat.  $56^{\circ} 27.1' N$ , long.  $133^{\circ} 40.4' W$ , are incorrect on manuscript T-12224. Detailed investigations of this area at low tides were made by the hydrographic party. The hydrographic data, contained in Volume 4, pp. 10, 13, and 14, should be the final authority. ✓

(2) The rock shown on manuscript T-12225 at lat.  $56^{\circ} 25.33' N$ , long.  $133^{\circ} 38.66' W$  does not exist. A visual inspection of this area was made at low water, and a sounding line was run over the area. The depth of water is about 14 fathoms at this point. The rock symbol should be deleted from the manuscript. T-12225 ✓

(3) Two rocks awash -- one 90 meters WNW of signal CUE, the other 120 meters NW of signal DIP -- shown on manuscript T-12225 were not seen at low tides. These rocks should be deleted. T-12225 ✓

(4) The rock shown on manuscript T-10709 at lat.  $56^{\circ} 24.03' N$ , long.  $133^{\circ} 42.90' W$  does not exist. Visual inspections were made at low water; sounding lines in this vicinity indicate a depth of about 10 fathoms at this point. However, there is a rock about T-10709 "Advance" does not show this rock. ✓

~~See Section G, item 4,~~

480 meters WNW of this position -- at lat.  $56^{\circ} 24.11' N$ , long.  $133^{\circ} 43.40' W$  -- which is not indicated on the manuscript; this rock is a significant danger to navigation (See Volume 4, Pg. 3). pos. 1 "a" (RED) Source of the originally charted rock is H-3405 (1912-13). See L-1513 (1965)

Many rocks not shown on the manuscripts were located by the hydrographic party.

Limits of several kelp and foul areas were revised by the hydrographic party. Refer to notes in the sounding volumes and the boat sheet.

The low-water line was not defined by soundings because of steep shoreline and/or extensive alongshore foul areas. The launch was navigated as close to shore as safety permitted. (The 10-fm curve East of Sumner Island, [betw. long.  $133^{\circ} 46' 30''$  &  $133^{\circ} 47' 00''$ ] could have been more correctly placed if a few additional lines would have been run.)

#### H. CROSSLINES

Crosslines on this sheet represent 9% of the hydrography, exclusive of developments. There are no unresolved discrepancies at crossings.

#### I. JUNCTIONS

Unverified July, '71 (H-9101) - Not registered July, '71

The junction with contemporary survey PA-10-3-65 was excellent. The junction with survey H-8689 on the south was very good. The sheet also junctions on the south with survey H-8149. There is a disagreement in the vicinity of lat.  $56^{\circ} 23.5'$ , long.  $133^{\circ} 43.2'$ . There are numerous disagreements, up to ten fathoms, between lat.  $56^{\circ} 23.4'$  and  $56^{\circ} 23.6'$ , and between long.  $133^{\circ} 36.2'$  and  $133^{\circ} 41.3'$ . The disagreements are caused by a combination of factors. The fathograms of survey H-8861 may be rescanned to eliminate some of the problems. There is apparently weak control in this area of H-8149. Displacement. No problem. Very steep shoreline and very rough, uneven, bottom.

Reviewer  
Rescanned  
Fath.

Pos. 120-122 "A"  
note, also, the inked  
junction on the S.S.

There are no unresolved differences at junctions of ship and launch work.

No contemp. survey Northward or Eastward

Reviewer accepted shoal depths in the overlapping area

#### J. COMPARISON WITH PRIOR SURVEYS

A comparison with H-1749, (1886) was not attempted as the projection is distorted in the vicinity of Sumner Island. (Also, the scale is too small. Soundings are too sparse, and survey methods too old.) H-1754 also in area.

There is generally poor agreement with H-3405 in the vicinity of Strait Island. The differences are as great as 40 fathoms. (Reject, see H-3405) Two of the more important differences are at the following locations:

Latitude	Longitude	
$56^{\circ} 24.15' N$	$133^{\circ} 42.95' W$	Rock awash does not appear on smooth sheet.

See Section "G", item 4, this D.R., p. 3

14  
6

Latitude      Longitude  
56° 24.25' N    133° 43.4' W    14/6 sounding does not appear  
on smooth sheet.

56° 24.12' N    133° 43.39' W    a rock baves 2 ft at MLLW (pos. 1 "a" [red])

There is generally good agreement with survey H-4763 and 4763b. There is some disagreement in the area east of Point Barrie (Lat. 56° 25.5' to 56° 26.0', Long. 133° 36.5' to 133° 37.5'). The cause of this difference is unknown. The following unnumbered presurvey review items from H-4763 were compared with the smooth sheet with results as follows: → (1927)

<u>Latitude</u>	<u>Longitude</u>		
56° 24.92' ✓	133° 47.14 <sup>3'</sup> ✓	The 6½ fathom shoal was found to have a least depth of 3.7 fathoms. ✓	pos. 94, 95 "c", vol. 2, p. 22 ✓
56° 24.24 <sup>1'</sup>	133° 46.11 <sup>.04'</sup>	The 29 fathom sounding was verified. The least depth found in the vicinity is 26 fathoms. pos. 28-29 "c", vol. 2, p. 9 ✓	✓
56° 25.53'	133° 36.58'	The least depth in the vicinity is 10.3 fathoms on the smooth sheet. This agrees well with the 10 fathom sounding at this location. Gentle slope; note pos. 78-79 "h", vol. 5, p. 45 ✓	✓
56° 25.74 <sup>7'</sup>	133° 36.11 <sup>3'</sup>	The 1 4/6 sounding was verified. The least depth in the area is 1.3 fathoms. This is a sunken rock. pos. 1 "a" (green) vol. 4, p. 18 ✓	✓
56° 25.44 <sup>3'</sup>	133° 39.21' ✓	There is a 2.1 fathom sounding in the vicinity of the 2 4/6 at this position. pos. 22 "m", vol. 7, p. 3 ✓	✓
56° 25.74 <sup>7'</sup>	133° 39.74 <sup>5'</sup>	The 3 fathom sounding was investigated and a shoaler depth of 1.8 fathoms was found in the vicinity. pos. 18 "m", vol. 7, p. 3 ✓	✓
56° 26.24 <sup>7'</sup>	133° 40.50 <sup>2'</sup>	The 7 3/4 fathom sounding was found to have a 7.4 fathom shoaler depth nearby. pos. 50-51 "q", vol. 8, p. 42 ✓	✓
56° 26.03'	133° 43.10'	The two 1/6 fathom soundings in the vicinity were investigated and it was found the northeasterly was a sunken rock covered by 3 feet at MLLW, and the south westerly of the two soundings was a rock covered by 2 feet at MLLW. pos. 1 and 2 "d", vol. 4, p. 9 ✓	✓
56° 25.40 <sup>8'</sup>	133° 42.60'	A 5.8 fathom sounding is in the vicinity of the two 6 fathom soundings at this location. pos. 62 "u", vol. 10, p. 54 ✓	✓

Latitude      Longitude

56° 26.72<sup>3'</sup>      133° 43.57'      There is an 11 fathom sounding approximately 50 meters NW of the 12 fathom sounding at this position. pos. 19-20 "t", vol. 9, p. 12 ✓

56° 26.70'      133° 42.00'      The 9 fathom sounding in the vicinity was not verified. Ambiguous statement. Several soundings in area are less than 9 fms. Note, also, pos. 4 & 5 "d" (red) vol. 4, p. 9

56° 26.80'      133° 41.40'      The 9 fathom sounding was verified. A shoaler sounding of 7.2 fathoms is at 56° 26.76', 133° 41.34'. pos. 3 "v", vol. 10, p. 57 ✓

56° 26.98<sup>0'</sup>      133° 40.95'      A 2.8 sounding is about 200 meters south of the 3 1/6 sounding at this position. pos. 2 "v", vol. 10, p. 57 ✓

There are no numbered presurvey review items within the limits of H-8861.

K. COMPARISON WITH CHART

*Reviewer's Comparison with chart # 8201, Nov. 7, 1970 (16<sup>th</sup> Ed.)*

A detailed comparison with chart 8201 was not attempted due to the small scale of the chart. The following are important changes which should be noted.

A hazardous rock, which bares 2 feet at MLW, was found at Lat. 56° 24.11', Long. 133° 43.40', about 650 meters WNW of the northwest tip of Strait Island. This rock is not marked by kelp, and there are strong currents and eddies around it. The rock is 500 meters WNW of the rock-awash symbol shown on chart 8201; there is no rock in the position shown on the chart. pos. 1 "a" (red) vol. 4, p. 3 ✓

There is an extensive shoal area with some significant peaks just west of Strait Island that are not indicated on the chart. They are as follows: ✓

2.2 fathoms at Lat. 56° 23.77', Long. 133° 43.43' pos. 1 "w", vol. 14, p. 3  
 2.8 fathoms at Lat. 56° 24.03', Long. 133° 43.63' pos. 125-126 "c", vol. 2, p. 28  
 6.5 fathoms at Lat. 56° 23.90', Long. 133° 43.78' pos. 104-105 "e", vol. 2, p. 25

A shoal covered by 6 fathoms was found at Lat. 56° 25.42', Long. 133° 37.84'. pos. 30 "m", vol. 7, p. 5, and pos. 42-43 "j", vol. 6, p. 5 ✓

The 5 1/2 fathom shoal at Lat. 56° 25.1', Long. 133° 37.0' on the chart appears to be located ~~W~~ of its ~~charted~~ position. The smooth sheet has a 5.8 fathom sounding at Lat. 56° 25.15', Long. 133° 37.17'. ✓

Also note 3.2-fm depth; pos. 82-83 "s", vol. 9, p. 62, at:

N. 56° 26.61'  
 W. 133° 41.00'



Refer to section J for areas where shoaler soundings were found on previously charted features. ✓

No important offshore shoals or rocks were found in the vicinity of Pt. Barrie other than those shown on the chart. The new survey will provide more accurate delineation of foul areas and depth curves in the area. ✓

#### L. ADEQUACY OF SURVEY

This survey is considered complete and adequate to supersede prior surveys for charting. ✓

#### M. AIDS TO NAVIGATION

There are no aids to navigation within the area of this survey. ✓

#### N. STATISTICS

	Ship <u>PATTON</u>	Launch <u>1191</u>	Skiff <u>Parties</u>
No. of Positions.	859	2746	75
Naut. Miles of Sounding Lines.	128.3	292.7	-
No. of Bottom Samples.	36	4	-

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Total Area Surveyed (square naut. miles). 19.7

Tide Stations. 1

Magnetic Stations. 2

Temperature and Salinity Observations. 1

#### O. MISCELLANEOUS

All pertinent information has been stated in other sections of this report.

#### P. RECOMMENDATIONS

No other field work is recommended. ✓

#### Q. REFERENCES TO REPORTS

Other reports related to this survey are:

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Season's Report

Coast Pilot Report

Fathometer Correction Report

Field Inspection and Discrepancy Prints Reports

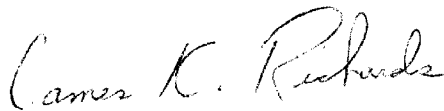
} Submitted  
} November  
} and  
} - December  
} 1965  
}

APPROVAL SHEET

H-8861 (PA-10-1-65)

All field and office work on this survey was performed under the direct supervision of the Commanding Officer. The boat sheet was inspected at the end of each day's work. Field records have been examined and are considered complete and adequate. No additional field work is recommended.

This approval applies to the smooth sheet as well as the field records.



James K. Richards  
LCDR, C&GS  
Comdg., Ship PATTON

LIST OF SIGNALS  
on Sheet H-8861 (PA-10-1-65)

<u>Name used in Hydrographic Survey</u>	<u>Origin of Station</u>
Ago	AGO, 1954
Alp	T-12225
Axe	T-10708
Bar	BARMIE 2, 1915
Bib	BIB, 1954
Bob	T-12225
Box	T-12225
But	T-10708
Con	CON, 1954
Cow	T-10708
Cue	T-12225
Day	T-10708
Dip	T-12225
Ego	T-10708
Emo	END, 1927
End	END, 1954
Fin	T-10708
Gal	GAL, 1954
Gem	T-10708
Hag	T-10708

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## LIST OF SIGNALS - Cont'd

How	HOW, 1954
Irk	T-10708
Jap	T-12225
Jim	T-12225
Job	T-10708
Joy	T-12225
Key	T-12225
Kid	T-10708
Lay	T-10709
Leg	T-12225
Man	T-10709
Mug	T-12225
Nut	T-10709
Oak	T-10709
Owl	T-12225
Pep	T-12225
Pet	T-10709
Pie	T-10708
Pit	T-12225
Rag	T-10709
Reef	REEF 2, 1915-1927
Sal	T-12225
Sam	T-12225
Sap	See short-base computations

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## LIST OF SIGNALS - Cont'd

Sky	T-12225
Tub	See short-base computations
Val	T-12223
Van	T-12225
War	T-12224
Win	T-12225
Yet	T-12225
Zoo	T-12225

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## ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

LAUNCH 1191

RAYTHEON DE-723 FATHOMETER #556

These corrections to be used for all days of launch hydro  
 (July 28 - September 8, 1965) on hydrographic survey PA-10-1-65,  
 (H-8861)  
 and for "e" day (September 9, 1965) on hydrographic survey  
 HO-12.5-1-62:  
 (H-8689)

<u>Correction (fms.)</u>	<u>To Depth (fms.)</u>
+ 0.2	5.0
+ 0.3	9.7
+ 0.4	23.5
+ 0.5	36.0
+ 0.6	49.3
+ 0.7	62.0
+ 0.8	75.0
+ 0.9	88.0
+ 1.0	111.5
+ 1.5	196.0
+ 2.0	Deepest Sounding

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## ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

SHIP PATTON

RAYTHEON DE-723 FATHOMETER #532

These corrections to be used for all days of ship hydro  
(August 24 - September 3, 1965) on hydrographic survey

PA-10-1-65:  
(H-8861)

<u>Correction (fms.)</u>	<u>To Depth (fms.)</u>
+ 0.3	17.0 - 29.9
+ 0.4	42.8
+ 0.5	55.5
+ 0.6	68.4
+ 0.7	81.2
+ 0.8	94.2
+ 0.9	101
+ 1.0	159
+ 1.5	Deepest Sounding

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## TIDE NOTE

to accompany

HYDROGRAPHIC SURVEY H-8861 (PA-10-1-65)

A Bristol pressure tide gage, located on the northeast side of Sumner Island, controlled all hydrography on this sheet.

Station: Sumner Island T. G.

Position: Lat.  $56^{\circ} 24' 36''$  N.  
Long.  $133^{\circ} 47' 33''$  W.

Time Meridian:  $120^{\circ}$  W.

Value of MLLW on Staff: 3.5 ft. above staff zero.

Duration of Operation: May 10 - June 24, 1965.  
July 28 - Sept. 18, 1965.

No corrections for time or height were applied to the observed tides.

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TIDE NOTE FOR HYDROGRAPHIC SHEET

November 10, 1966

~~Naval Oceanographic~~ Pacific Marine Center

Plane of reference approved in  
14 volumes of sounding records for

HYDROGRAPHIC SHEET 8861

Locality: Keku Strait, Southeast Alaska

Chief of Party: J. K. Richards, 1965

Plane of reference is mean lower low water

Tide Station Used (Form C&GS-681):

Sumner Island

Height of Mean High Water above Plane of Reference is as follows:

11.7 feet

Remarks

  
Chief, Tides and Currents Branch

GEOGRAPHIC NAMES  
Survey No. H-3861

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. Quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	
Conclusion Island									1
Keku Strait									2
Kupreanof Island									3
Point Barrie									4
Strait Island									5
Summer Island									6
Summer Strait									7
Barrie Island									8
U. S. W. 7-26-71 CCH 8-16-77									9
									10
OK by Dr. Wright									11
because of Coast Pilot									12
claim, - vol. 8, p. 121									13
(July 25, 1971)									14
									15
									16
									17
									18
									19
									20
									21
									22
									23
									24
									25
									26
									27

PREPARED BY

*John W. Dickster*  
CARTOGRAPHIC TECHNICIAN

APPROVED BY

*A. Joseph Wright*  
CHIEF GEOGRAPHER

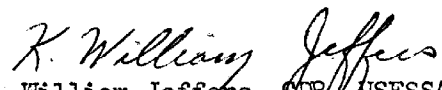
Approval Sheet

The smooth sheet has been inspected and meets the requirements of the Hydrographic Manual. (Note: Exceptions are noted in the verifier's report.)

Examined and Approved

  
William M. Martin  
Supervisory Carto. Tech.

Approved and Forwarded

  
K. William Jeffers, ODR/USESSA  
Acting Chief, Processing Division, PMC

3/3/70

# HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. H-8861

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		/	BOAT SHEETS		/	
DESCRIPTIVE REPORT		/	OVERLAYS			
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1					
VOLUMES	14					
BOXES						

T-SHEET PRINTS (List) 10708, 10709, 12223, 12224 & 12225.

SPECIAL REPORTS (List)

## OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				3720
POSITIONS CHECKED		870	23	
POSITIONS REVISED		19	0	
DEPTH SOUNDINGS REVISED		58	4	
DEPTH SOUNDINGS ERRONEOUSLY SPACED		83	0	
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0	0	
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		12	12 hrs.	
JUNCTIONS		0	12 "	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		386	5 "	
SPECIAL ADJUSTMENTS		0	0	
ALL OTHER WORK		40	153 "	
TOTALS		438	182 "	
PRE-VERIFICATION BY		BEGINNING DATE	ENDING DATE	
VERIFICATION BY Vincent F. Flor		BEGINNING DATE March 29, 1968	ENDING DATE Aug. 9, 1968	
REVIEW BY S. Rose		BEGINNING DATE July 1, 1971	ENDING DATE Aug. 6, 1971	

Cur. Insp. H.H. Myers 5/15/77 50 hrs.  
Cartographer 5/11/77 3 hrs

H-8861

Information for Future Presurvey Reviews

No noteworthy bottom changes have occurred since the prior surveys.

<u>Position Index</u>		<u>Bottom Change Index</u>	<u>Use Index</u>	<u>Resurvey Cycle</u>
<u>Lat.</u>	<u>Long.</u>			
562	1334	1	1	50 years
562	1335	1	1	50 years

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OFFICE OF MARINE SURVEYS AND MAPS

MARINE SURVEYS DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8861

FIELD NO. PA-10-1-65

Southeast Alaska, Keku Strait, Sumner Island to Point Barrie

SURVEYED: July 28 - September 8, 1965

SCALE: 1:10,000

PROJECT NO.: OPR-448

SOUNDINGS: Raytheon DE-723 Depth Recorders  
Lead Line, Sounding Pole

CONTROL: Sextant Fixes on  
Shore Signals

Chief of Party .....	J. K. Richards
Surveyed by .....	D. A. Moore
.....	N. A. Horst
Protracted by .....	J. O. Rolland
Soundings Plotted by .....	J. O. Rolland
Verified and Inked by .....	V. F. Flor
Reviewed by .....	S. Rose
	Date: August 6, 1971
Cursory inspection made--survey	G. K. Myers
processing considered complete .....	May 15, 1977

1. Description of the Area

This is a survey of the southern part of Keku Strait at its confluence with Sumner Strait. The survey extends from Sumner Island to about 2 miles east of Point Barrie.

The bottom in this area is rugged with many rocky shoals offshore. Deep depths and steep gradients are found between many of these features. Thick kelp marks most of the shoals. Deepest depths in the area are about 200 fathoms.

Predominant bottom characteristics of the area are rocky and mud. Many ledges and foul areas exist alongshore.

2. Control and Shoreline

The source of the control is adequately described in the Descriptive Report.

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The shoreline originates with reviewed photogrammetric manuscripts T-10708 (1955-65), T-10709 (1955-65), T-12223 (1961-71), T-12224 (1961-70), and incomplete photogrammetric manuscript T-12225 (1961). The shoreline in the junctional areas of H-9217 (1971) and H-9160 (1970) originates with reviewed photogrammetric manuscript T-12225 (1961-70).

### 3. Hydrography

- a. Depths at crossings are in good agreement.
- b. The usual depth curves are adequately delineated except in foul areas or where ledge made passage dangerous.
- c. The development of the bottom configuration and the investigation of least depths are considered adequate.

### 4. Condition of Survey

The field plotting, sounding records, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual. Clarifying notes in the survey records provided excellent detailed information of many offshore features observed during the survey.

### 5. Junctions

Adequate junctions were effected with H-8149 (1954) on the south, H-9223 (1971) on the southeast, H-9217 (1971) on the east, H-9160 (1970) on the north, and H-9101 (1965-70) on the west and northwest.

The junction with H-8689 (1962) on the southwest will be discussed in the review of that survey.

### 6. Comparison with Prior Surveys

a.	H-1749	(1886)	1:80,000
	H-1753	(1886)	1:80,000
	H-1754	(1886)	1:80,000
	H-3405	(1912-13)	1:20,000
	H-4763	(1927)	1:20,000
	H-4763b	(1929)	1:20,000

The prior surveys cover the entire area of the present survey. The smaller scale of these surveys and the lack of extensive development preclude a detailed comparison with the present survey. However, the general character of the area has remained the same.



The position of a rock awash at latitude  $56^{\circ}24.17'$ , longitude  $133^{\circ}42.9'$  from H-3405 that falls in present depths of 25 fathoms was reported to be questionable on the prior survey. A rock uncovering 2 feet at MLLW presently falls about 480 meters west. This is considered the correct position of the feature.

With the addition of some soundings and bottom characteristics carried forward from H-4763 and H-4763b, the present survey is adequate to supersede these prior surveys in the common area.

b. H-3811 (1915-16) WD 1:20,000

The effective drag depths on H-3811 (1915-16) WD do not conflict with depths on the present survey.

A sounding and some bottom characteristics have been brought forward to supplement present hydrography.

7. Comparison with Chart 8201, 16th Edition, November 7, 1970

a. Hydrography

Most of the charted hydrography originates with a partial application of the boat sheet of the present survey (Bp-68686); however, a few soundings originate with the previously mentioned prior surveys. The notation "bare 3 ft LLW" for the rock awash charted at latitude  $56^{\circ}26.75'$ , longitude  $133^{\circ}41.90'$  originates with H-4763 (1927) and is erroneously printed on the chart. This information should be in accordance with the smooth sheet of the present survey.

The present survey is adequate to supersede the charted hydrography in the common area.

b. Aids to Navigation

There are no aids to navigation within the limits of the present survey.

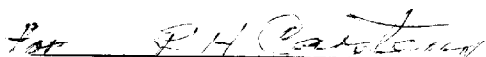
8. Compliance with Instructions


The present survey adequately complies with project instructions.

9. Additional Field Work

The present survey is a very good basic survey and no additional field work is recommended.

Examined and Approved:

  
Chief  
Marine Surveys Division

  
Associate Director  
Office of Marine Surveys  
and Maps

133° 20'

The channel markers in Keku Strait are not shown on this chart.

FE  
(1)

Vegetation  
The land is generally heavily wooded. The woods decrease in density with the elevation leaving the higher elevations bare.

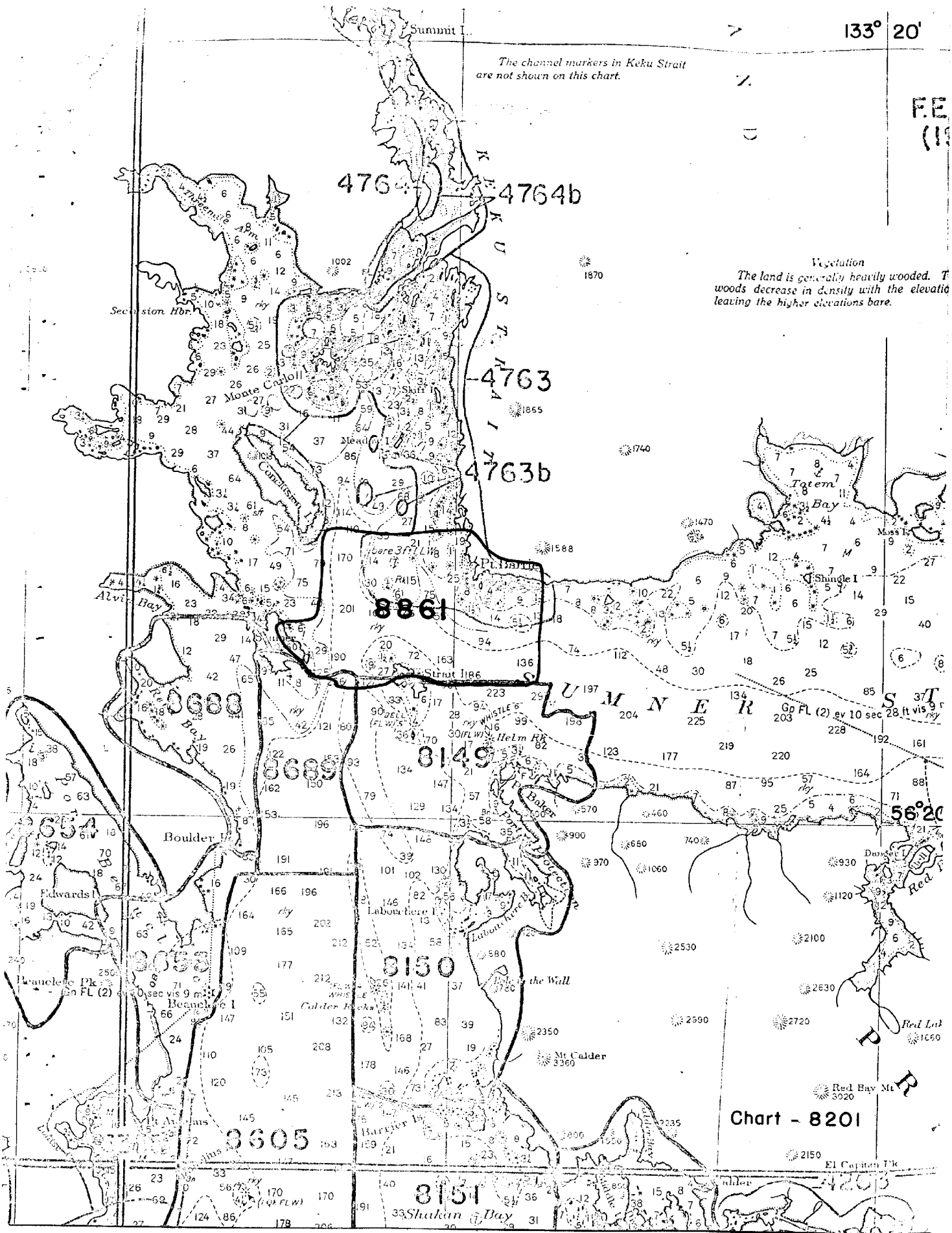


Chart - 8201

### RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8861

## INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

[illegible]